Strategy Research Project

# RECIPROCALLY EMBEDDING ISR LIAISONS TO BUILD UNITY OF EFFORT

BY

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USAWC CLASS OF 2010



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# REPORT DOCUMENTATION PAGE

*Form Approved*
*OMB No. 0704-0188*



| **1. REPORT DATE** *(DD-MM-YYYY)* | **2. REPORT TYPE** | **3. DATES COVERED** *(From - To)* |
|---|---|---|
| 04-02-2010 | Strategy Research Project | |

**4. TITLE AND SUBTITLE**
Reciprocally Embedding ISR Liaisons to Build Unity of Effort

**5a. CONTRACT NUMBER**

**5b. GRANT NUMBER**

**5c. PROGRAM ELEMENT NUMBER**

**6. AUTHOR(S)**
Lieutenant Colonel Rachel A. McCaffrey

**5d. PROJECT NUMBER**

**5e. TASK NUMBER**

**5f. WORK UNIT NUMBER**

**7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)**
Colonel Gerald V. Goodfellow
Department of Military Strategy, Planning, and Operations

**8. PERFORMING ORGANIZATION REPORT NUMBER**

**9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)**
U.S. Army War College
122 Forbes Avenue
Carlisle, PA 17013

**10. SPONSOR/MONITOR'S ACRONYM(S)**

**11. SPONSOR/MONITOR'S REPORT NUMBER(S)**

**12. DISTRIBUTION / AVAILABILITY STATEMENT**
Distribution A: Unlimited

**13. SUPPLEMENTARY NOTES**

**14. ABSTRACT**
The most complex current challenge to U.S. national security, the war in Afghanistan, is driven by Intelligence, Surveillance and Reconnaissance (ISR) and requires innovative thinking about ISR in order to create strategic advantage. Coalition forces will only win if they effectively employ ISR to enhance situational awareness and seize the initiative. Employing ISR effectively means ensuring seamless integration between ISR operations and maneuver operations, especially at the tactical level. One solution to meet Afghanistan's intelligence challenges involves embedding liaison officers at the tactical level to enable Army and Air Force tactical units to better understand each other's requirements and assist in destroying barriers that prevent operational integration. Improving integration of ISR operations between air and ground forces will enhance unity of effort and better enable the U.S. to meet its objectives in Afghanistan.

**15. SUBJECT TERMS**
Army/Air Force Integration, Liaison Officers, GLOs, ALOs

| **16. SECURITY CLASSIFICATION OF:** | | | **17. LIMITATION OF ABSTRACT** | **18. NUMBER OF PAGES** | **19a. NAME OF RESPONSIBLE PERSON** |
|---|---|---|---|---|---|
| **a. REPORT** | **b. ABSTRACT** | **c. THIS PAGE** | | | **19b. TELEPHONE NUMBER** *(include area code)* |
| UNCLASSIFED | UNCLASSIFED | UNCLASSIFED | UNLIMITED | 34 | |

USAWC STRATEGY RESEARCH PROJECT

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This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.



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## ABSTRACT

AUTHOR: Lieutenant Colonel Rachel A. McCaffrey

TITLE: Reciprocally Embedding ISR Liaisons to Build Unity of Effort

FORMAT: Strategy Research Project

DATE: 4 February 2010 WORD COUNT: 7,178 PAGES: 34

KEY TERMS: Army/Air Force Integration, Liaison Officers, GLOs, ALOs

CLASSIFICATION: Unclassified

The most complex current challenge to U.S. national security, the war in Afghanistan, is driven by Intelligence, Surveillance and Reconnaissance (ISR) and requires innovative thinking about ISR in order to create strategic advantage. Coalition forces will only win if they effectively employ ISR to enhance situational awareness and seize the initiative. Employing ISR effectively means ensuring seamless integration between ISR operations and maneuver operations, especially at the tactical level. One solution to meet Afghanistan's intelligence challenges involves embedding liaison officers at the tactical level to enable Army and Air Force tactical units to better understand each other's requirements and assist in destroying barriers that prevent operational integration. Improving integration of ISR operations between air and ground forces will enhance unity of effort and better enable the U.S. to meet its objectives in Afghanistan.

# RECIPROCALLY EMBEDDING ISR LIAISONS TO BUILD UNITY OF EFFORT

In a speech to the Air War College, Secretary of Defense Robert Gates challenged students to develop innovative concepts to enable the U.S. to meet its strategic objectives in current contingency operations, even if the concepts do not fit the conventional wisdom of the Air Force. Secretary Gates stated, "…we can do—and we should do—more to meet the needs of men and women fighting in the current conflicts while their outcome may still be in doubt." Secretary Gates asked officers to pursue solutions, in the mold of the late Colonel John Boyd, which will enable airpower to meet "…complex challenges to our national security."[1] Secretary Gates' mandate requires the services to continuously evaluate current operations in order to identify and implement necessary changes to doctrine, organization, training, materiel, leadership, personnel, facilities and policy (DOTMLPF-P) to meet current challenges.

The most visible complex current challenge to U.S. national security, the war in Afghanistan, is driven primarily by Intelligence, Surveillance and Reconnaissance (ISR)[2] and as such, requires innovative thinking about ISR in order to create strategic advantage.[3] Coalition forces will only win this counterinsurgency if they effectively employ ISR in order to enhance situational awareness and seize the initiative.[4] Employing ISR effectively means ensuring seamless integration between ISR operations and maneuver operations, especially at the tactical level. In order to achieve this level of integration, Army and Air Force leaders must update policy and doctrine to take advantage of lessons that demonstrate the best way to integrate air and ground operations is by embedding liaison officers (LNOs) with each other's units. As part of the update, leaders must also examine changing how, organizationally, the Joint Force

provides intelligence to tactical units. One solution to meet the intelligence challenges of Afghanistan: change policy, doctrine and organization to embed liaisons at the tactical level to enable Army and Air Force tactical units to better understand each other's requirements and assist in breaking down service barriers that currently prevent optimal operational integration. Improving integration of Air Force ISR operations with Army maneuver operations will build trust, enhance unity of effort and enable the U.S. to meet its objectives in the Afghan war.

The Air Force and Army should use history to inform liaison policy and doctrine because history demonstrates the importance of integrating air and ground capabilities in order to achieve decisive effects. In 1940 Army Chief of Staff General George Marshall directed studies on policies and tactical doctrine for close air support (CAS) to improve operations. In 1942, after conducting field tests, the U.S. Army Air Corps (which became the Air Force) published Field Manual (FM) 31-35 *Aviation in Support of Ground Forces* to define the roles of "…an air support officer…an air officer who represented the air-strike control node to the ground combat elements."[5] Beginning with the Italian Campaign, the Army Air Corps embedded teams with Army units to control CAS missions, teams that ultimately evolved into Joint Terminal Air Controllers (JTACs) who continue to deconflict fires and provide terminal control to attack aircraft today.[6,7]

In Afghanistan for instance, JTACs created tactical, operational and strategic effects during the initial stages of Operation ENDURING FREEDOM when they used their knowledge of airpower capabilities and state-of-the-art equipment to synchronize Air Force operations with Special Operations Forces (SOF) and other government agencies to direct air strikes on critical targets. This example of seamless integration,

the employment of liaison officers in unique and imaginative ways, assisted the U.S. in achieving its initial tactical, operational and strategic objectives.

Air Force leadership continues to recognize and value the synergy created by liaison officers and considers integration of Air Force combat power with ground maneuver combat power so important that it dedicates a 113-page Air Force Doctrine Document, 2-1.3, to *Counterland Operations*. This doctrine codifies best practices and directs implementation of these practices to optimize Army/Air Force integration of maneuver forces. The document includes a chapter on Command and Control with four pages dedicated to liaison requirements.[8]

According to this doctrine, an Air Liaison Officer (ALO) "…functions as the primary advisor to individual land commanders on the capabilities and limitations of air power. Acting as a land commander's expert on air and space operations, ALOs must be involved in the supported land commander's military decision-making process so they can perform detailed air support planning with their own staff."[9] This Air Force doctrine also states that Ground Liaison Officers (GLOs) "…interpret the land battle…assist tactical planning coordination between the flying unit and supported ground unit(s), brief aircrew, and relay mission results to the Battlefield Coordination Detachment."[10] Doctrine recommends, as a best practice, embedding liaison officers to assist in both planning and executing combat missions in order to seamlessly integrate the complementary capabilities of ground and air forces.

To further emphasize the importance of and requirement for liaison officers, the Army and the Air Force Chiefs of Staff signed the Memorandum of Agreement between the United States Army and the United States Air Force for Army/Air Force Liaison

Support to provide guidance for "…the assignment, duties and support…" for 19 entities, including ALOs and GLOs, "…supporting Air Force and Army organizations."[11] The 2008 version of the MOA, scheduled for update in 2010, formally documents responsibilities for integrating the unique capabilities of the Army and Air Force, specifically ground maneuver and kinetic air capabilities. The MOA objective "…is to increase the joint capabilities; identify joint interdependencies; and standardize air-ground training, equipment interoperability, and combat operations of the USA and USAF."[12] The Army and Air Force should update this MOA to reflect the increasing importance of ISR operations, especially in the current counterinsurgencies, and formalize the requirement to embed GLOs into ISR units.[13]

Updating the MOA should generate minimal controversy since senior Air Force and Army leadership continue to recognize the importance of liaison officers in integrating air and ground kinetic operations. For instance, General (retired) Gary Luck and Colonel (retired) Mike Findlay, in a Joint Forces Command (JFCOM) Insights and Best Practices paper on "Air Component Integration in the Joint Force," emphasize the value of liaison officers in planning and executing kinetic air and ground operations at the tactical level. General Luck and Colonel Findlay state:

> [GLOs] provide AF aircrews detailed insight into the tactical situation on the ground and detailed understanding of the ground commander's intent and his scheme of maneuver. The provision of a GLO is clearly a drain on U.S. Army personnel resources; however our observation is that ***enormous*** (emphasis added) dividends result from the investment. Without dedicated expertise imbedded in ground and air combat formations, the integration of joint airpower on the battlefield would simply not be as successful as it has been, and in some cases it would not be possible.[14]

This emphasis on the importance and value of liaison officers in integrating kinetic operations highlights the lack of emphasis, in doctrine and policy, on the value

LNOs would provide in integrating Air Force ISR and Army ground operations. Because it recognizes the requirement, the Air Force does provide ISR LNOs to ground maneuver units in Iraq and Afghanistan, even though no doctrine or formal policy defines a requirement to do so. In contrast, while some Army personnel recognize the potential benefits of embedding GLOs in Air Force ISR units, Army leadership seems unwilling to do so unless policy directs or doctrine recommends that they do so. Policy and doctrine are broad enough that Army leaders can choose to embed liaison officers in Air Force ISR units but they currently do not choose to do so. Without direction from senior leaders or the imprimatur of doctrinal "Best Practice," the Army is unlikely to choose to invest in a new mission area for GLOs despite the significant benefit that lessons learned from kinetic operations indicate they would provide.

This choice is shortsighted because, as General Luck and Colonel Findlay point out, "[t]here is a great need for exchange of expertise at all echelons to achieve tactical integration. [GLOs] provide better understanding at all nodes of the Airpower architecture."[15] Just as the Army derives significant benefits from embedding GLOs in A-10 units, the Army can expect to derive similar benefits by embedding GLOs in Distributed Common Ground System (DCGS) units. Further, as illustrated below, failure to embed liaisons and effectively leverage their expertise can lead to operational failure.

Failure to use ALOs as policy dictates and doctrine recommends caused significant problems during Operation ANACONDA. Many Air Force planners believe the failure of Operation ANACONDA to achieve its mission of killing or capturing Taliban and Al Qaeda fighters located in the Ahahi-Kot Valley stemmed from the lack of Air Force representation during the planning process.[16] "Whatever its causes, the failure to

integrate the air component into the planning process for ANACONDA led to cascading errors. Post-battle interviews suggest not only did the operation's planners not understand how to use air assets, but they also had only a vague understanding of what airpower capabilities were available."[17] The Combined Joint Task Force's failure to embed air planners with ground planners led to misunderstandings about airpower's potential contributions, ISR and kinetic, to this battle.

Planners and operators, air and ground, cannot optimize and integrate operations to meet objectives if they do not understand sister service capabilities, and if they do not reach across service boundaries to tap into expertise in order to build understanding. ALOs and other Airmen embedded in Army units understand airpower and GLOs and other Soldiers embedded in Air Force units understand ground maneuver; given an opportunity, experts from both services can explain and advocate for appropriate use of the services' complementary capabilities during contingencies.

Additionally, air and ground integration problems can lead Soldiers to question the value of airpower, which can result in missed opportunities to leverage available assets, damage Army/Air Force cooperation, and ultimately lead to mission failure. "…[L]eaders returning from the field often argue that Soldiers should not rely too heavily on airpower, that airpower is often late to the fight, that it is mainly a kinetic instrument, and that it is poorly integrated into the ground scheme of maneuver."[18] By following existing policy and doctrine, the Army and Air Force can avoid the problems encountered during Operation ANACONDA, when failure to properly integrate air and ground maneuver forces impeded mission accomplishment. Further, by interpreting existing doctrine broadly or updating doctrine and policy to explicitly replicate LNO best

practices from kinetic force integration, the two services can more effectively integrate Air Force ISR and Army maneuver operations.

The immediate imperative to create doctrine and policy that will recommend or direct exchange of liaison officers between Air Force ISR and ground maneuver units comes from the operational environment and strategic objectives in Afghanistan. The International Security Assistance Force (ISAF) Commander, General McChrystal, identifies several themes in his assessment for how Coalition forces can achieve their objectives. "[T]he objective is the will of the people, our conventional warfare culture is part of the problem, the Afghans must ultimately defeat the insurgency, ***we cannot succeed without significantly improved unity of effort***, (emphasis added) and finally, that protecting the people means shielding them from *all* threats."[19] General McChrystal echoes Secretary Gates' call to move away from conventional thought and develop innovative approaches to solve ISAFs tactical, operational and strategic problems.

Improving integration of Air Force ISR and Army ground operations is one way to achieve General McChrystal's goal of enhancing unity of effort. "The continuing challenge for joint and component commanders is how to best integrate [airpower] capabilities at the lowest appropriate level to gain synergy and harmony while increasing speed of execution in the tactical fight."[20] Pushing integration down to the lowest possible level and empowering tactical commanders "…directly supports unity of command and unity of effort…[and] emphasizes tactical level initiative and horizontal linkages between forces at the lowest appropriate levels to take advantage of complementary capabilities."[21] The Air Force provides enormous potential ISR capabilities to the Joint fight in Afghanistan but can only achieve its full potential by

integrating ISR operations with ground operations. Better integration will allow Air Force ISR to improve situational awareness for ground commanders by providing long-term surveillance or the right picture or right electronic intercept at the right time to the right ground commander at the right level. This allows the commander to better understand the situation and determine whether the situation requires a kinetic response or some other type of action. Better situational awareness will unify effort and lead to better decision-making at all levels, which will create the effects General McChrystal needs to achieve strategic success in Afghanistan.

For example, imagine that a Battalion receives a tip about the location of a high-value individual (HVI), an individual who drives a white pick-up truck and launches mortars at Coalition Forward Operating Bases (FOBs) from the truck bed. A source reports the HVI is having dinner at a compound and provides coordinates for the compound. First the Battalion needs to determine the accuracy of the tip; does the tip provide accurate, actionable intelligence about a target of interest to the ground unit? An Air Force ISR unit can rapidly determine if there is actually a white pick-up truck at the compound and possibly whether there is something in the truck bed that might be a mortar launcher. Second, if the Battalion decides to try to capture or kill the HVI, how can Battalion leadership rapidly plan an operation with the greatest chance of success at the minimum level of risk? An Air Force ISR unit has the ability to rapidly collect and disseminate intelligence that can determine the layout of the compound to include any defensive fighting positions, walls, snipers, checkpoints, additional vehicles and, possibly, personnel moving in and out of the compound as well as patterns of

movement. This tailored intelligence will, in all likelihood, make it significantly easier for the Battalion to craft a feasible, executable plan.

However as they plan, Battalion leadership must simultaneously ask whether targeting the HVI will help to achieve or diminish U.S. objectives at the tactical, operational and strategic level. The Air Force ISR unit will likely have access to multi-source intelligence that may help Battalion leadership answer this critical question. The Air Force ISR unit may have access to theater lists that delineate off-limit areas for kinetic operations and the ISR unit can likely provide collateral damage estimates if the Battalion decides to action the target. Or the Air Force ISR unit may have information that indicates that the compound in question is an orphanage or acts as a gathering place for influential sheikhs or religious leaders. Perhaps the Air Force ISR unit will pass intelligence that indicates the HVI in question can lead the Battalion to more valuable individuals. Clearly capturing or killing an insurgent who has attacked Coalition bases will help improve Force Protection. However if targeting the HVI causes unwanted collateral damage or if tracking the HVI can in some way help the Battalion achieve a strategic objective, Battalion leadership may delay targeting and instead request that the Air Force ISR unit try to track the HVI until the Battalion can capture or kill the HVI with low risk of damage to U.S. strategic objectives or until the HVI leads the Battalion to higher value targets.

Of course all of this analysis and decision-making needs to occur quickly, which requires both the Air Force ISR unit and the Battalion to understand the other units' requirements, capabilities and limitations and act on the information and intelligence exchanged. However the Battalion is unlikely to act, or change an existing plan, if it

does not trust the Air Force ISR unit. Thus effective integration requires first and foremost trust between units, trust most effectively created by human contact. Liaison officers build the trust and unity of effort necessary to enable units to achieve their mission objectives.

In a counterinsurgency, objectives for a tactical unit are not necessarily only tactical objectives. Battalion leadership needs to make decisions based on U.S. strategic and operational as well as tactical objectives.[22, 23] Thus as they receive time-sensitive Human Intelligence from the sources they develop on the ground, Battalion leadership must understand how to leverage other sources of intelligence to assist them in rapidly making the best decisions possible based on the operational environment. Success means that Battalions can rapidly make decisions to prosecute targets when appropriate or can rapidly decide not to prosecute targets when waiting provides the better strategic edge. As General McChrystal states in his *COMISAF's Initial Assessment*, "…[o]ur strategy cannot be focused on seizing terrain or destroying insurgent forces; our objective must be the population. In the struggle to gain the support of the people, every action we take must enable this effort…Gaining their support will require a better understanding of the people's choices and needs."[24] Ground units need comprehensive situational awareness in order to successfully prosecute the counterinsurgency in Afghanistan; Air Force ISR units help build that situational awareness when they effectively integrate their operations with Army ground maneuver operations to create unity of effort. LNOs at the tactical level mitigate integration challenges and drive mission success.

Unfortunately current doctrine and policy do not require LNOs at the tactical level nor do they address the challenges of integrating tactical intelligence operations with ground maneuver operations in low intensity conflicts like the one in Afghanistan. This is because existing doctrine, policy and law primarily address operational integration at the Combatant Command level and above. Doctrine, policy and law deal primarily with Major Theater War and thus leave gaps and seams in lower-level integration that leaders in all services must address when looking for innovative ways to achieve success in the current contingencies. For instance, the most comprehensive law that attempts to close Joint planning and execution seams, the1986 Goldwater-Nichols Act, deals primarily with Joint operations at the Joint Task Force level and above. After Department of Defense's [DoD's] unsuccessful attempt to rescue American hostages in Iran, Congress recognized that a lack of cross-service knowledge and expertise hampered U.S. operations and thus negatively impacted DoD's ability to achieve National objectives. This recognition drove Congress to pass legislation with a goal of "…enhancing 'jointness', unifying the direction of the armed forces under joint doctrine and policies for the employment of multi-service military forces…to improve warfighting capabilities."[25]

While high-intensity conflicts such as Operation DESERT STORM and the initial stages of Operation IRAQI FREEDOM demonstrate improvements driven by Goldwater-Nichols, the law does not seem to have as much positive impact in the current low-intensity conflicts in Iraq and Afghanistan. Low-intensity conflict requires rapid decision making which often pushes responsibility down to lower levels, meaning that frequently tactical commanders make decisions that impact strategic objectives. Goldwater-

Nichols, with its focus on Combatant Commands, fails to effectively drive jointness at lower echelons, the echelons with primary responsibility for fighting current contingencies.[26]

Exacerbating the limitations in Goldwater-Nichols, current intelligence doctrine fails to address how to integrate tactical ISR operations with ground maneuver operations. As a matter of fact, when discussing tactical unit intelligence requirements, Joint intelligence doctrine only discusses dissemination, not operations, stating:

> [T]he combatant command JIOCs (Joint Intelligence Operations Centers) are the primary intelligence organizations providing support to joint forces at the operational and tactical levels. The JIOC integrates…capabilities…[and] seamlessly combines all intelligence functions, disciplines and operations…[and] fully synchronizes and integrates intelligence with operation planning and execution.[27]

While this may work in a Major Theater War, it is an ineffective method of conducting intelligence operations during a counterinsurgency.

The JIOCs have two major problems with regard to providing intelligence to tactical units during counterinsurgencies. The first problem is an organizational one. Because of where they are located, JIOCs tend to focus most heavily on providing intelligence to the headquarters and COCOM leadership. For instance, the Afghan JIOC focuses on strategic and operational level intelligence requirements such as support for the August 2009 elections or the recent COMISAF assessment for the President. However, even if the JIOCs did not have the pressure of supporting a General and his staff, it is nearly impossible for the JIOCs to "synchronize and integrate" intelligence for subordinate units due to time constraints. In a counterinsurgency, timelines are so compressed that tactical units need intelligence more quickly than the JIOCs are structured to provide.

The second problem the JIOC faces in Afghanistan deals with sources of intelligence. In Afghanistan each tactical ground maneuver unit knows a "…great deal about their local Afghan districts but are generally too understaffed to gather, store disseminate, and digest the substantial body of crucial information that exists outside traditional intelligence channels."[28] Since the tactical units provide the greatest source of intelligence about the environment but lack the resources to pass that intelligence up to the JIOC, analysts at the JIOC and other operational and strategic intelligence centers lack much of the crucial tactical data necessary to conduct effective analysis. "The problem is these [operational and strategic] analysts…are starved for information from the field, so starved, in fact, that many say their jobs feel more like fortune telling than serious detective work."[29] Thus while some tactical units have adequate situational awareness about their own battlespace, no intelligence organization, to include the JIOC, has enough information to build patterns or conduct predictive analysis across Afghanistan. Information and intelligence are stovepiped in Afghanistan because current Joint intelligence doctrine and policy fail to address the challenges of rapidly sharing intelligence and information, especially between tactical units, in a counterinsurgency.

LNOs provide a capability that addresses some of the emerging intelligence and information sharing challenges in current low-intensity conflicts. In their Best Practices document, General (retired) Luck and Colonel (retired) Findlay highlight the benefits of embedding Air Force and Army LNOs outside of maneuver units, especially during Irregular Warfare operations.

> Our warfighters understand that tactical level integration is much more than JTACs collocated with an infantry company commander. Airpower

> capabilities extend far beyond strike aircraft…The operators on the ground have led the way in recognizing the need for other airpower enablers in the [Theater Air Control System]TACS for both planning and execution. For example, we're seeing ISR specialists in [Brigade Combat Teams] BCTs and [Regimental Combat Teams] RCTs…providing a level of expertise previously not existent.[30]

Warfighters in Afghanistan and Iraq recognize the need to look beyond the Air Force's kinetic capabilities to find ways to more effectively integrate Air Force ISR with ground maneuver operations. Even without doctrinal or policy requirements, smart, innovative leaders understand the need to adapt organizations to meet emerging requirements.

In 2006 two Air Force intelligence Colonels identified a need to adapt due to a lack of unity of effort between Air Force ISR units and ground units conducting operations in Iraq.[31] They recognized ground forces have intelligence requirements Air Force ISR squadrons can meet. They also believed that ground forces were not effectively "pulling" the intelligence from Air Force squadrons and Air Force squadrons were not effectively "pushing" the relevant intelligence to the units that needed it. To solve this problem, the two Colonels created a pilot program to embed an Air Force ISR officer in an Army Division. In November 2006 an Air Force Major deployed to Multi-National Division-North (MND-N) to improve integration between Air Force ISR operations and ground combat operations.

Skeptics in both the Air Force and the Army did not believe the deployment would appreciably change operations and thus the pilot program was limited to one officer at one Division. However by early spring of 2007, the 25th Infantry Division Commander, Major General Benjamin R. Mixon, recognized his ISR LNO had significantly increased his access to Air Force intelligence and the Air Force had markedly improved the relevance of the intelligence disseminated to his Division. With

Major General Mixon's support and the support of senior leaders in Iraq, Qatar, the Army's Training and Doctrine Command and the Air Force's Air Combat Command, the Air Force expanded the pilot program. By November 2010 eight Air Force officers and four NCOs were serving in rotational deployments and two additional NCOs and one civilian were serving in non-rotational positions for a total of seven Air Force ISR LNOs serving in Iraq and eight serving in Afghanistan.[32]

The Colonels who envisioned and fought for the Air Force ISR LNO program recognized innovative ways to leverage emerging Air Force ISR technical capabilities to enhance ground combat operations. They convinced both the Army and the Air Force that this initiative can significantly flatten the hierarchy that slows down requests for information and intelligence dissemination. Although the Army prefers to deploy and co-locate intelligence with ground forces, the Air Force Colonels believe intelligence reach-back can work effectively by building real unity of effort while limiting logistical and resource costs. Unity of effort happens when both Air Force ISR and ground combat units understand the other units' capabilities, limitations, and requirements and such understanding emerges when units have face-to-face contact, even if the face-to-face contact is simply one smart individual co-located with a sister service combat unit.[33] Writing in Joint Forces Quarterly, Lieutenant General Raymond T. Odierno, III Corps Commander, and two of his subordinates agree, stating:

> [o]ne initiative that has helped tactical commanders in Iraq integrate theater ISR assets into their operations is the presence of…ISR liaison officers at division headquarters. Providing these Air Force subject matter experts as advisors to division staff sections as key members of the intelligence operations team has been a ***combat multiplier***. (emphasis added) It would be extremely helpful to have these experts at BCT level to provide the [Combined Air Operations Center] and other related organizations with insights into the operations they support."[34]

However, Air Force ISR LNOs only solve half of the problem, limiting unity of effort between ground operations and Air Force ISR operations. While ISR LNOs help ground forces to effectively leverage Air Force ISR capabilities to meet their requirements, high operations tempo and a lack of ground warfare experience limits the support ISR LNOs can provide back to Air Force squadrons to help Airmen understand the context and objectives of ground operations. For instance, frequently ground forces submit intelligence requests to ISR units that lack detail or explanation of "why" the ground forces need the information. Since most airmen and officers at Air Force ISR squadrons lack ground warfare experience, they interpret requests literally and attempt to answer exactly the question asked. Often, however, the request does not accurately outline what the ground forces actually need.

An embedded GLO solves this and other challenges. GLOs have the knowledge, skills, training and experience to help drive tailored responses to specific requirements. A GLO can review requests, interpret requirements, determine any implied tasks and, if necessary, request amplifying information from the requestor. Because a GLO understands ground operations, any request for amplifying information will meet the expectations of the ground force and thus will likely generate the information needed to successfully meet the requestor's requirements.

Perhaps most importantly, though, the human contact provided by LNOs at both Army and Air Force units builds trust, trust which leads to the significantly enhanced unity of effort General McChrystal desires. Air Force ISR LNOs build trust by acting as a "combat multiplier," helping Army units effectively leverage the capabilities of the entire Air Force ISR enterprise. GLOs build trust in two critical ways. First, GLOs

provide confidence to deployed commanders that the intelligence provided is relevant and credible. GLOs ensure relevance by understanding the ground scheme of maneuver and ground fires and effects. This enables GLOs to work with Air Force ISR professionals to disseminate the right intelligence, in the right format, to enable more rapid decision-making at the deployed location. Similarly GLOs drive credibility by ensuring different service vocabularies do not impede collaboration and by giving Army commanders confidence the commanders can depend on the data provided by the Air Force. Second, GLOs build trust by explaining why Air Force ISR units may sometimes seem unresponsive to Army unit requirements. As GLOs develop a stronger understanding and appreciation of the Joint Force Commander (JFC) process for allocating ISR assets and Processing, Exploitation and Dissemination (PED) capabilities, GLOs can effectively translate both processes and priorities to Army units. This builds confidence in Army units that Air Force ISR units are consistently in the fight, conducting operations to meet the JFC's highest theater priorities. Human contact, in the form of liaison officers at both locations, thus builds trust and unity of effort, which leads to more effective integration of operations, allowing the Joint Force to achieve its objectives.

Recognizing the challenges that integration of maneuver and intelligence operations pose, SOF adopted a structure in Iraq that embeds intelligence operators with ground planners. SOF was able to rapidly adopt a new structure because, as a small, well-funded operational force, they own and/or have the ability to acquire intelligence platforms, systems and personnel. SOF resources enabled forward deployment of intelligence personnel where they embedded in the Tactical Operations

Center. Face-to-face, they built relationships and trust and "…collaborated and fused in a flattened environment where horizontal communication is favored over vertical." This resulted in targeting that goes "…from observation to action within minutes providing the agility that counter-network and counterinsurgency forces require." SOF's "…ability to decide and its authorities to act were flattened with no need to seek higher permissions and this made it fast enough to be effective against the enemy."[35] SOF's new structure coupled with innovative TTPs built habitual relationships, trust and unity of effort, creating an environment where intelligence operators and SOF operators worked as a team. This new structure allows SOF to rapidly act on perishable intelligence because flat hierarchies allow seamless integration of operations to achieve tactical, operational and strategic objectives.

In many ways this new SOF structure is attractive for conventional units. For example, just as SOF do not have the time to wait for intelligence in a compressed decision-making timeline, conventional ground units in Afghanistan lack the time to send requests to the JIOC and then wait for intelligence that may or may not allow them to take action. However because conventional forces in Afghanistan operate on a much larger scale, logistically it is much more difficult to create an organization that replicates the SOF structure in Iraq. Afghanistan has limited billeting space and facilities to support a large influx of intelligence operators at FOBs. Additionally, the majority of life support material such as food, water and toiletries, has to flow into Afghanistan via truck convoy through Pakistan. This limited-capacity and relatively dangerous method of re-supply argues for minimizing forward footprints.

The Air Force designs its ISR weapons system to work via reach-back both to minimize forward footprints and associated logistical requirements, and to build flexibility into the weapons system. This structure allows Air Force ISR operators to simultaneously work multiple target sets in multiple Combatant Commands if required. While Air Force leaders clearly see the benefit in this structure, many in the Army do not. Similar to their SOF counterparts, Army operators want the confidence that owning capabilities provides, which is why Army leadership pursues acquisition of ISR assets and PED capabilities to deploy with ground units.[36] While these acquisitions provide Army units with organic ISR capability, they significantly increase logistical and force protection requirements at deployed locations, and limit availability of assets to support emerging higher priorities. For instance, if an Army Brigade commander owns a Sky Warrior (a multipurpose, mid-size, remotely piloted aircraft), the commander faces a difficult decision if another Brigade needs his ISR assistance. If the commander decides to move his asset to help the other Brigade, the commander will lose the use of his asset, which could negatively impact his Brigade's operations, especially if his Brigade ends up in an unanticipated firefight. Also, when making the decision, the Brigade commander has no guarantee that another Brigade commander, with an available Sky Warrior, will decide to aid his Brigade if a real-time emergency occurs. On the other hand, a Predator controlled by the Combined Air Operations Center (CAOC) will likely move to any engaged Brigade in accordance with JFC guidance and direction.

This philosophical difference about ISR asset allocation and employment underpins the lack of confidence some Soldiers have in Air Force responsiveness.

Liaison officers can help explain JFC allocation processes to Soldiers in order to build confidence, enhance transparency of capability allocation and demonstrate that the Air Force, under the direction of the JFC, effectively employs ISR capabilities to meet the JFC's highest priorities. Liaison officers can help ground units understand that the Air Force "has their back" which builds confidence and trust and enhance unity of effort during Joint operations.

To create enhanced unity of effort and to move as close as feasible to the SOF structure, given existing personnel, logistic and financial constraints, the services should reciprocally embed LNOs at both ground combat and Air Force ISR units. Instead of deploying hundreds of intelligence operators and their associated equipment to Afghanistan, Army leadership should embed GLOs in the reach-back Air Force ISR units to better integrate Air Force intelligence operations with ground combat operations. In conjunction with appropriate commander's intent and mission-type orders, LNO expertise will more effectively integrate operations between Divisions, Brigades, Battalions and Air Force ISR squadrons enhancing unity of effort to achieve theater tactical, operational and strategic objectives. LNOs will help flatten organizational structures to successfully prosecute the current contingencies.

However, limited manpower means that the services will not be able to embed LNOs in every unit that could use one. In an ideal world, the Army and Air Force would embed three or more Airmen or Soldiers at key locations to provide full-time coverage. Resource realities, however, likely dictate embedding one knowledgeable Soldier or Airman at each key location. These LNOs must focus on providing expertise during operations planning and execution. Additionally, commanders must creatively schedule

LNOs to allow LNOs to share their expertise across the broadest spectrum of the unit. Finally, commanders must ensure LNOs assist in planning major operations and participate in operations with significant cross-service implications. This creates the largest impact for the smallest personnel investment.

Will embedding a single LNO at a tactical unit really make a difference? A single LNO can provide expertise that simply does not exist at sister service units and that expertise can make a significant difference in planning and execution.

> DCGS and reachback [sic] [Unmanned Aerial Vehicles] UAV Squadrons can greatly benefit from ground operators that can 'translate' from Army to Air Force, gain access to ground unit portals and provide meaning/texture to ground component CONOPS. Also, [Joint Force Air Component Commander] JFACC ISR expertise is definitely a benefit at the BCT/RCT level and at times, even at the battalion level. An ISR LNO will know the geography and mission of subordinate battlespace owners and can develop personal relationships with brigade and battalion S2s/S3s. Thus, when ISR requests flow up, as they do in [Irregular Warfare] IW, an Airmen's [sic] perspective and input can be injected at all levels.[37]

Single LNOs provide balance between the SOF structure that embeds multiple intelligence operators with ground units, and the logistical and other resource realities that limit the number of Soldiers and Airmen DoD can effectively and efficiently deploy and support. This balance enables more effective information sharing and increases confidence between tactical units, which significantly enhances situational awareness and decision-making.

Enhancing situational awareness creates another advantage for U.S. forces. Building better situational awareness allows commanders at all levels to make more-informed decisions more quickly, allowing U.S. forces to act inside of U.S. enemies' decision cycles giving U.S. forces the advantage. Colonel John Boyd discusses this method of decision-making and acting in a cycle he calls Observe, Orient, Decide, Act:

the OODA loop. To defeat an enemy, a military force must Observe, Orient, Decide and Act more quickly than their foe in order to retain initiative and surprise.

> In order to win, we should operate at a faster tempo or rhythm than our adversaries—or, better yet, get inside [our] adversary's Observation-Orientation-Decision-Action time cycle or loop. Why? Such activity will make us appear ambiguous (unpredictable) [and] thereby generate confusion and disorder among our adversaries—since our adversaries will be unable to generate mental images or pictures that agree with the menacing as well as faster transient rhythm or patterns they are competing against.[38]

In low-intensity conflict and especially in a counterinsurgency, the requirements for relevant information and a faster OODA loop are likely even stronger imperatives than in a Major Theater War because U.S. forces must be "…ready to take advantage of fleeting opportunities that are so often found on the insurgent battlefield."[39] Embedding Joint expertise at levels lower than current policy dictates and doctrine recommends, such as at echelons below Corps and Numbered Air Force (NAF), enables U.S. units to increase the relevance and speed of intelligence delivered to ground units. Increasing relevance and speed builds better situational awareness, which allows commanders to make more-informed decisions more quickly.

> [E]mpowerment of subordinate tactical commanders enable synergy and harmony of operations at a much faster "speed of war" in which we make decisions and execute faster than the enemy. "Speed of War" [refers] to the rapid decision-making and execution necessary to operate within an adversary's decision cycle (or OODA loop). This is particularly relevant in irregular warfare where the adversary may plan at low levels and act without detailed coordination. [40]

Improving the relevance and increasing the speed of intelligence delivered to ground forces allows ground forces to get inside of insurgent decision cycles to sow confusion and discord, and force insurgents to make mistakes which ground forces can exploit to create a virtuous cycle of Coalition success.

Finally, policy and doctrine need to dictate exchange of liaison officers at echelons below Corps and NAF so that the Joint Force can most effectively use new capabilities to achieve U.S. objectives. Advanced technology and highly trained Airmen provide Air Force ISR squadrons with game-changing capabilities but only if the Joint Force fully integrates these capabilities into Joint operations. The Air Force has airpower expertise but, as mentioned earlier, depends on Army GLOs to effectively integrate air and ground operations. As the Air Force continues to field new ISR technology, Army leaders must work with Air Force leaders to ensure the resources invested in this state-of-the-art technology benefit all U.S. operations. Army leadership should recognize this imperative because historically technological advances alone failed to ensure success.

> Rather in nearly every case the major factor has been how military organizations have integrated technological advances into their doctrinal and tactical system…[S]uccess or failure in that regard has resulted in battlefield surprise and success…[W]hat has been unquestionably crucial is the degree of imagination military organizations have displayed in incorporating new technologies into their doctrine and concepts.[41]

Air Force leaders recognized the need for more effective integration and in 2006 began embedding Air Force ISR experts with the ground maneuver units who need actionable intelligence to drive battlefield success. However as mentioned, the Army has been reluctant to embed GLOs with ISR units. Instead of working with Air Force leaders to determine ways to more effectively leverage the Air Force's ISR capabilities, such as by changing policy or doctrine, Army leaders have focused on procuring organic ISR assets, PED personnel and systems to help them prosecute their fights. Influential high-level ISR leaders disagree with this approach. Lieutenant General David Deptula, the Air Force Deputy Chief of Staff for ISR, states that:

> [t]heater-capable [Unmanned Aerial Systems] UAS [and the processing, exploitation and dissemination that go with them] ought to be prioritized by the joint force commander to meet campaign objectives. Local-capable - line-of-sight - UAS ought to be prioritized by the unit commander. There are a lot of people who misinterpret this as an Army-vs.-Air Force argument. It's not. There are no Air Force targets in Iraq or Afghanistan. The targets belong to the joint force commander. So the issue is between the perspective of the overall joint force commander and a local unit commander. To optimize UAS capability for all, the theater-capable UAVs should be flown in line with what the joint commander needs, while also ensuring there are enough local-capable UAS assets to meet smaller unit commanders' needs. It's very important that we follow our tried-and-true joint organizational approaches that have existed since the 1986 Goldwater-Nichols Act. We could be doing it better.[42]

Obviously ground commanders prefer organic ISR assets that they control to provide complete ISR for every operation.[43] Unfortunately with the current constraints on the U.S. budget, the Nation cannot afford multiple theater-capable ISR systems with different logistical and maintenance requirements and different PED and communications systems. As Lieutenant General Deptula points out:

> We have had the luxury over the last 15 or 20 years, to be blunt, of kicking the can down the road when it comes to making hard fiscal choices. The time is here when we can no longer do that [due to coming increases in Social Security and Medicare as well as the fiscal pressures of the current economic crisis]. So it makes a lot of sense for the services to get together and focus on interdependency and investing in what each does very well. We should focus investment on each service's core functions instead of trying to seek self-sufficiency.[44]

This need to balance effectiveness with budgetary efficiency drives the requirement for changes to policy, doctrine and organizations to make the best use of the assets available. Army leaders need to commit to integrating Air Force ISR into their operations through reciprocally embedding LNOs. Senior leaders in both services must cooperate to solve challenges vice looking for significant funding to procure disparate ISR capabilities.

To meet Secretary Gates' Air War College challenge, development of innovative concepts to enable the U.S. to meet its strategic objectives, leaders in the Air Force and Army must work together to develop imaginative methods to use new technology to optimally integrate Air Force ISR operations into ground operations. DOTMLPF-P analysis demonstrates a need for changing policy, doctrine and organizational structure to enhance integration by incorporating best practices identified by senior military leaders. Reciprocally embedding air and ground liaison officers in ground and Air Force ISR units provides an innovative way to more effectively use Joint Force capabilities to achieve National objectives. LNOs will improve integration of Air Force ISR and ground operations by building trust and confidence, significantly enhancing unity of effort and enabling the U.S. to meet its objectives in the Afghan war.

Leaders in all services must continue to focus on initiatives that will increase the relevance of intelligence provided to all users and flatten hierarchies in order to increase situational awareness and speed decision-making to effectively counter decentralized, agile enemies. Changing doctrine and policy will encourage and ultimately direct Soldiers and Airmen to focus on integrating and creating unity of effort to meet the challenges of Afghanistan and other overseas contingency operations. Leaders can meet Secretary Gates' challenge to "do more" by incorporating new policies that maximize the capabilities of new technologies and systems. By doing so, leaders will "…meet the needs of men and women fighting in the current conflicts." The men and women risking their lives deserve no less.

## Endnotes

[1] Robert M. Gates, "Remarks to Air War College," lecture, U.S. Air War College, Montgomery, AL, 21 April 21, 2008, http://www.defenselink.mil/speeches/speech.aspx?speechid=1231 (accessed November 27, 2009).

[2] Captain Mike Erwin, "Integrating Intelligence with Operations," *Special Warfare, The Professional Bulletin of the United States Army John F. Kennedy Special Warfare Center and School*, http://www.soc.mil/swcs/swmag/Templates/Page1.htm (accessed 9 January 2010). In discussing the war in Afghanistan Captain Erwin writes: "'Intelligence drives operations' — perhaps no phrase is heard more often on today's battlefields in Afghanistan and Iraq. Understanding the enemy — who he is, what motivates him, where he is located and how he fights — is critical to planning and conducting successful operations in an unconventional warfare, or UW, environment."

[3] Major General Michael T. Flynn, Captain Matt Pottinger, Paul D. Batchelor, *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan*, (Washington, DC: Center for a New American Security, January 2010). The authors argue that "[t]he highly complex environment in Afghanistan requires an adaptive way of thinking and operating. Just as the old rules of warfare may no longer apply, a new way of leveraging and applying the information spectrum requires substantive improvements."

[4] Both the Major General Flynn, Captain Pottinger, Batchelor and Captain Erwin articles discuss the criticality of timely, accurate, relevant intelligence in successfully prosecuting the Afghan war at the tactical, operational and strategic levels.

[5] Thomas Manacapilli and Steven Buhrow, *Feasibility of an Air Liaison Officer Career Field, Improving the Theater Air-Ground System,* (Santa Monica, CA: RAND, 2008), 52.

[6] Ibid, 53.

[7] Technical Sergeant Brian Davidson, "Air Force Tactical Air Control Party in Afghanistan," About.com, January 25, 2004, http://usmilitary.about.com/cs/airforce/a/aftacp.htm (accessed 16 December 2009).

[8] Air Force Doctrine Document 2-1.3, *Counterland Operations*, (Montgomery, AL: US Air Force Doctrine Center, 11 September 2006), http://www.fas.org/irp/doddir/usaf/afdd2-1-3.pdf, (accessed 9 January 2010), 61-64.

[9] Ibid, 62.

[10] Ibid.

[11] *Memorandum of Agreement between the United States Army and the United States Air Force for Army/Air Force Liaison Support*, 23 January 2008, p. 1-2.

[12] Ibid, 5.

[13] Army-Air Force Integration Forum (AAFIF) Meeting Minutes, Langley AFB, VA, 19 August 2009. The minutes from the meeting, attended by Army and Air Force Colonels and GS-15s, address the Memorandum of Agreement on Army-Air Force Liaison Support, which is due for

review in January 2010. The minutes include the following: "Mr. Watkins facilitated a review of the current (23 Jan 2008) version of the MOA. Intent was to consider relevant revisions for inclusion in the next MOA, which may be presented for signature at the 23-24 Feb 2010 Army-Air Force Warfighter Talks. Key revisions were referenced to Part V Provisions. In addition, Col Bridges recommended inclusion of language for AF ISR LNOs and NCOs at the Corps, Division and Brigade level. Col Bridges advocated for Army GLOs at UAS Distributed Common Ground System (DCGS) centers. A2 believes strongly in embedded Army expertise to more rapidly support maneuver commander ISR requirements."

[14] General (Ret) Gary Luck and Colonel (Ret) Mike Findlay, *Air Component Integration in the Joint Force, Focus Paper #6*, (Norfolk, VA: Joint Warfighting Center, United States Joint Forces Command, 2009), 14.

[15] Ibid, 18.

[16] Richard B. Andres and Jeffrey B. Hukill, "Anaconda, A Flawed Joint Planning Process," *Joint Forces Quarterly*, Issue 47 (4th Quarter 2007): 135-140. The article provides extensive details on Task Force Mountain's lack of Airmen involvement in the planning for Operation ANACONDA.

[17] Ibid, 137.

[18] Ibid, 140.

[19] General Stanley McChrystal, "*COMISAF's Initial Assessment*," Washingtonpost.com, August 30, 2009, http://media.washingtonpost.com/wp-srv/politics/documents/Assessment_Redacted_092109.pdf, (accessed 7 November 2009) 1-3.

[20] General Luck and Colonel Findlay, *Air Component Integration in the Joint Force, Focus Paper #6*,1.

[21] Ibid.

[22] General Charles C. Krulak, "The Strategic Corporal: Leadership in the Three Block War," *Marines Magazine*, January 1999, http://www.au.af.mil/au/awc/awcgate/usmc/strategic_corporal.htm (accessed 4 November 2009). In his article, General Krulak highlights situations where tactical echelons make decisions that impact strategic objectives and thus the need to ensure individuals operating at tactical levels have the "…unwavering maturity, judgment, and strength of character" to make "…the right decision at the right time." I argue that the tactical echelons also need relevant, timely intelligence to make the right decision at the right time in order to take actions that promote strategic success, at times possibly at the expense of tactical or operational success.

[23] U.S. Joint Forces Command, *Irregular Warfare (IW) Joint Operating Concept*, *Version 1.0,* (Norfolk, VA: U.S. Joint Forces Command, 11 September 2007), 28. The Joint Operating Concept on IW states, "The campaign design must consider the protracted nature, cultural aspects, and environmental and political causes of the conflict. This means prosecuting IW will require an unusual degree of clarity about political objectives translated through every level of command."

[24] General McChrystal, *COMISAF's Initial Assessment*, 1-1-1-2.

[25] Katherine Lemay Brown, "*Goldwater-Nichols Department of Defense Reorganization Act of 1986: Time for an Update to Joint Officer Personnel Management?,*" (Maxwell AFB, AL: Air University, 2000), Abstract.

[26] Goldwater-Nichols requires all of the services to place a prescribed number of officers in JDAL billets. The Air Force does not have any intelligence JDAL billets at tactical units. All 404 Air Force intelligence JDAL billets are at the Combatant Commands, Joint Staff or National Intelligence Agencies.

[27] U.S. Joint Chiefs of Staff, *Joint Intelligence*, Joint Publication 2-0, (Washington, DC: U.S. Joint Chiefs of Staff, June 22, 2007), xv-xvi.

[28] Major General Michael T. Flynn, Captain Matt Pottinger, Paul D. Batchelor, *Fixing Intel: A Blueprint for Making Intelligence Relevant in Afghanistan*, 7. This document discusses in detail the authors' assertion that intelligence in Afghanistan is irrelevant because current policy, doctrine and organizational constructs do not encourage, direct or even enable information from tactical units to flow up the chain of command. Operational- and strategic-level intelligence organizations need information from the tactical level to help understand the environment in the different operating areas that they can fuse to build patterns and conduct predictive analysis.

[29] Ibid, 9.

[30] General Luck and Colonel Findlay, *Air Component Integration in the Joint Force, Focus Paper #6*,18.

[31] One Colonel had just completed a tour as the Collection Manager at the Multi-National Force-Iraq (MNF-I), responsible for coordinating all theater- and national-level ISR collection for Iraq. The second Colonel had just arrived at the CAOC in Qatar to serve as the Air Force Forces A2 (Forward), responsible for managing intelligence functions for the Air Force's operational-level command and control node for operations in Iraq and Afghanistan. Their experiences and observations drove Air Force implementation of the Air Force ISR LNO initiative.

[32] "ISR Liaison History," (Langley AFB, VA: Air Combat Command, November 2010). Air Combat Command Directorate of Intelligence (ACC/A2) has supervised the ISR LNO program since its inception during the fall of 2008. Ms. Cheri Tone, a contractor in ACC/A2, provided the chart with the Air Force ISR LNO History.

[33] Ori Brafman and Rod A. Beckstrom, *The Starfish and the Spider, The Unstoppable Power of Leaderless Organizations*, (New York, NY: Penguin Group 2006) 90. Brafman and Beckstrom discuss the need, even in decentralized organizations, for physical contact to "…keep members accountable to one another. When you see people face-to-face, it's harder to brush them off." I believe that it is this reality that makes liaison officers so successful and important. While the Air Force cannot, due to logistic limitations, deploy entire DCGS squadrons forward, the Army needs to see some Air Force "skin" in the fight. The liaison officers, especially since they have proven they can leverage the entire Air Force ISR enterprise, demonstrate the Air Force is fully engaged in ground operations.

[34] Lieutenant General Raymond T. Odierno, Lieutenant Colonel Nichoel E. Brooks, and Lieutenant Colonel Francesco P. Mastracchio, "ISR Evolution in the Iraqi Theater," *Joint Forces Quarterly*, issue 50, (3rd Quarter 2008): 55.

[35] Brigadier General Flynn, Colonel Juergens, and Major Cantrell, "Employing ISR: SOF Best Practices," 60.

[36] Stew Magnuson, "Army to Air Force: We Won't Give Up Our Surveillance Aircraft," *National Defense Online*, February 2010, available at: http://www.nationaldefensemagazine.org/archive/2010/February/Pages/ArmytoAirForceWeWon'tGiveUpOurSurveillanceAircraft.aspx, (accessed 17 January 2010). Magnuson writes: "Army medium-altitude, long-endurance aircraft such as the Sky Warrior — and the soon to be deployed extended range/multi-purpose UAV — remain under control of brigade commanders and are operated in theater by pilots and controllers who are deployed with the troops they serve. [Lieutenant General David] Deptula, [the Air Force Deputy Chief of Staff for ISR] among other proposals, recommended that these assets be placed under the control of joint regional commands.

[37] Luck and Findlay, *Air Component Integration in the Joint Force, Focus Paper #6*, p. 19.

[38] John Boyd, *Patterns of Conflict*, (December 1986), p. 5, http://www.d-n-i.net/boyd/pdf/poc.pdf, (accessed 7 November 2009).

[39] Brigadier General Flynn, Colonel Juergens, and Major Cantrell, "Employing ISR: SOF Best Practices," 59.

[40] Luck and Findlay, *Air Component Integration in the Joint Force, Focus Paper #6*, p. 1.

[41] United States Joint Forces Command, *The Joint Operating Environment 2008: Challenges and Implications for the Future Joint Force*, (Suffolk VA: U.S. Joint Forces Command, 2008), 38.

[42] Lieutenant General David Deptula, USAF, Interview by John T. Bennett, *Defense News On-line*, January 12, 2009 available at http://www.defensenews.com/story.php?i=3896251, (accessed 17 January 2010).

[43] Stew Magnuson, "Army to Air Force: We Won't Give Up Our Surveillance Aircraft," *National Defense Online*, February 2010, available at: http://www.nationaldefensemagazine.org/archive/2010/February/Pages/ArmytoAirForceWeWon'tGiveUpOurSurveillanceAircraft.aspx, (accessed 17 January 2010). The tone of this article is contentious as the Army officers interviewed make it clear that they believe "…that the Air Force — when employing aircraft such as the Predator and Reaper —was not responsive to the needs of ground forces, and that operators have been known to fly the UAVs off in the middle of operations to perform other previously scheduled tasks. In short, Air Force operated [sic] surveillance aircraft cannot be counted on in the heat of battle." The Army officers interviewed also made it clear that they oppose, and would work with DoD and Congressional leadership to oppose, apportionment of any current organic Army UAS to the JFACC.

[44] Lieutenant General David Deptula, USAF, Interview by John T. Bennett, *Defense News On-line*, January 12, 2009 available at http://www.defensenews.com/story.php?i=3896251, (accessed 17 January 2010).